

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A direct backlight type liquid crystal device comprising:

a backlight source,

a light diffusion sheet which has a protective film on a surface thereof which faces the backlight source or on both surfaces thereof as desired,

a light ray adjusting film, and

a liquid crystal panel,

wherein

the light diffusion sheet is formed from a composition comprising:

(A) 80 to 99.995 wt% of aromatic polycarbonate resin (component A), and

(B) 0.005 to 20 wt% of polymeric fine particles (component B) having an average particle diameter of 0.01 to 50 μm ,

and

(C) 0.001 to 5 parts by weight of at least one heat stabilizer (component C) selected from the group consisting of a phosphate compound (component C-1), a phosphite compound (component C-2) and a phosphonite compound (component C-3), and

(D) 0 to 0.5 parts by weight of ultraviolet absorber (component D), and

(E) 0.0001 to 3 parts by weight of fluorescent whitening agent (component E), and

(F) less than 0.001 parts by weight of hindered phenol compound (component F),

based on 100 parts by weight of the total of the components A and B,

and the light diffusion sheet has a thickness of 0.5 to 10 mm,

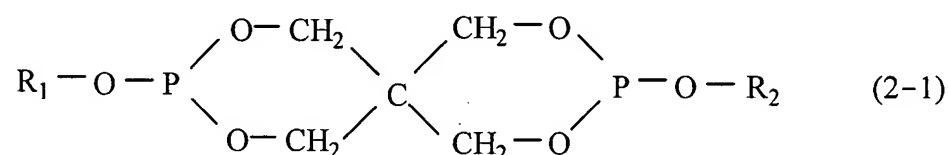
wherein the protective film is an organic polymer film containing 0.1 to 50 wt% of ultraviolet absorber (component D^p) and having a thickness of 0.1 to 500 μm , and the organic polymer is an acrylic resin or a polycarbonate resin.

2. (Original) The device of claim 1, wherein the average particle diameter of the polymeric fine particles (component B) is 0.1 to 10 μm .

3. (Original) The device of claim 1, wherein the absolute value of the difference between the refractive index of the polymeric fine particles (component B) and the refractive index of the aromatic polycarbonate resin (component A) is 0.02 to 0.3.

4. (Original) The device of claim 1, wherein the polymeric fine particles (component B) are cross-linked silicone particles or cross-linked acryl particles.

5. (Previously presented) The device of claim 1, wherein the heat stabilizer (component C) is at least one compound selected from the group consisting of trialkyl phosphate (component C-1) and a pentaerythritol diphosphite compound (component C-2) represented by the following general formula (2-1):



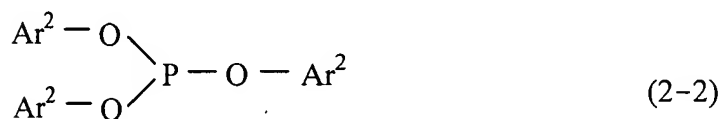
(wherein R₁ and R₂ each represent a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted aryl group having 6 to 30 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 30 carbon atoms, a substituted or unsubstituted cycloalkyl group having 4 to 20 carbon atoms or a 2-(4-oxyphenyl)propyl substituted aryl group having 15 to 25 carbon atoms).

6. (Original) The device of claim 1, wherein the heat stabilizer (component C) is trimethyl phosphate (component C-1).

7. (Original) The device of claim 1, wherein the heat stabilizer (component C) is distearyl pentaerythritol diphosphite (component C-2).

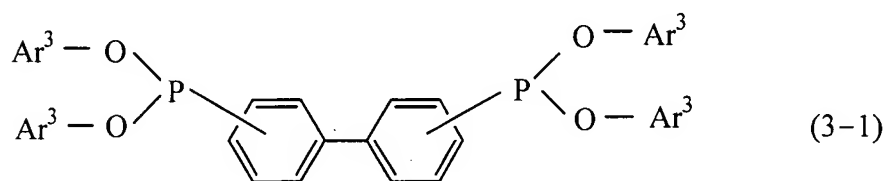
8. (Original) The device of claim 1, wherein the heat stabilizer (component C) comprises trimethyl phosphate (component C-1) and distearyl pentaerythritol diphosphite (component C-2).

9. (Original) The device of claim 1, wherein the heat stabilizer (component C) comprises distearyl pentaerythritol diphosphite (component C-2), a phosphite compound (component C-2) represented by the following general formula (2-2):



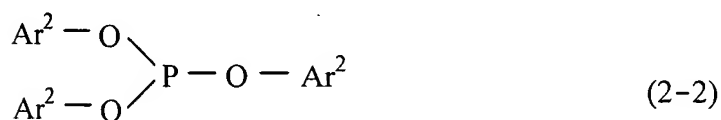
(wherein Ar²s may be the same as or different from one another and represent a C₈ to C₂₀ aryl group substituted with 2 to 4 alkyl groups),

and a phosphonite compound (component C-3) represented by the following general formula (3-1):



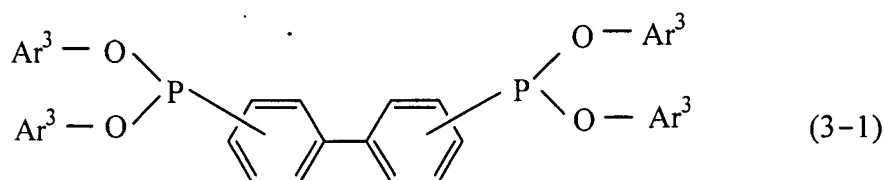
(wherein Ar³s may be the same as or different from one another and represent a C₆ to C₂₀ aryl group which is unsubstituted or substituted with an alkyl group).

10. (Original) The device of claim 1, wherein the heat stabilizer (component C) comprises a phosphite compound (component C-2) represented by the following general formula (2-2):



(wherein Ar²s may be the same as or different from one another and represent a C₈ to C₂₀ aryl group substituted with 2 to 4 alkyl groups),

and a phosphonite compound (component C-3) represented by the following general formula (3-1):



(wherein Ar³s may be the same as or different from one another and represent a C₆ to C₂₀ aryl group which is unsubstituted or substituted with an alkyl group).

11. (Cancelled)

12. (Original) The device of claim 1, wherein the ultraviolet absorber (component D) is at least one ultraviolet absorber selected from the group consisting of a benzophenone based ultraviolet absorber, a benzotriazole based ultraviolet absorber and a benzoxazine based ultraviolet absorber.

13-14. (Cancelled)

15. (Previously presented) The device of claim 1, wherein the organic polymer constituting the protective film is an acrylic resin, a polycarbonate resin, a polyethylene resin or a polyester resin.

16. (Previously presented) The device of claim 1, wherein the ultraviolet absorber (component D^p) in the protective film is at least one ultraviolet absorber selected from the group consisting of a benzophenone based ultraviolet absorber, a benzotriazole based ultraviolet absorber and a benzoxazine based ultraviolet absorber.

17. (Original) The device of claim 1, wherein the fluorescent whitening agent (component E) is a benzoxazole based fluorescent whitening agent and/or a coumarin based fluorescent whitening agent.

18. (Currently amended) A light diffusion sheet which has a protective film for a direct backlight, wherein the light diffusion sheet is formed from a composition comprising:

(A) 80 to 99.995 wt% of aromatic polycarbonate resin (component A), and

(B) 0.005 to 20 wt% of polymeric fine particles (component B) having an average particle diameter of 0.01 to 50 μm ,

and

(C) 0.001 to 5 parts by weight of at least one heat stabilizer (component C) selected from the group consisting of a phosphate compound (component C-1), a phosphite compound (component C-2) and a phosphonite compound (component C-3), and

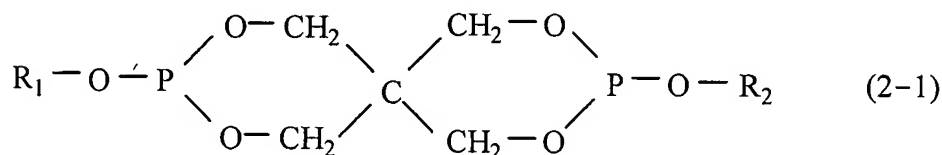
(D) 0 to 0.5 parts by weight of ultraviolet absorber (component D), and
(E) 0.0001 to 3 parts by weight of fluorescent whitening agent (component E), and
(F) less than 0.001 parts by weight of hindered phenol compound (component F),
based on 100 parts by weight of the total of the components A and B,
and the light diffusion sheet has a thickness of 0.5 to 10 mm,
~~and~~ wherein the protective film is an organic polymer film containing 0.1 to 50 wt% of
ultraviolet absorber (component D^p) and having a thickness of 0.1 to 500 μm, and the organic
polymer is an acrylic resin or a polycarbonate resin.

19. (Original) The light diffusion sheet of claim 18, wherein the average particle diameter of the polymeric fine particles (component B) is 0.1 to 10 μm.

20. (Original) The light diffusion sheet of claim 18, wherein the absolute value of the difference between the refractive index of the polymeric fine particles (component B) and the refractive index of the aromatic polycarbonate resin (component A) is 0.02 to 0.3.

21. (Original) The light diffusion sheet of claim 18, wherein the polymeric fine particles (component B) are cross-linked silicone particles or cross-linked acryl particles.

22. (Previously presented) The light diffusion sheet of claim 18, wherein the heat stabilizer (component C) is at least one compound selected from the group consisting of trialkyl phosphate (component C-1) and a pentaerythritol diphosphite compound (component C-2) represented by the following general formula (2-1):



(wherein R₁ and R₂ each represent a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted aryl group having 6 to 30 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 30 carbon atoms, a substituted or unsubstituted cycloalkyl group having 4 to 20 carbon atoms or a 2-(4-oxyphenyl)propyl substituted aryl group

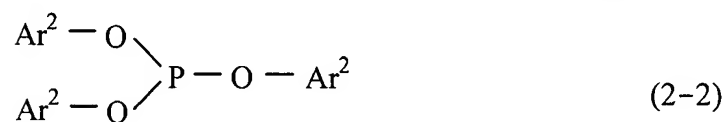
having 15 to 25 carbon atoms).

23. (Original) The light diffusion sheet of claim 18, wherein the heat stabilizer (component C) is trimethyl phosphate (component C-1).

24. (Original) The light diffusion sheet of claim 18, wherein the heat stabilizer (component C) is distearyl pentaerythritol diphosphite (component C-2).

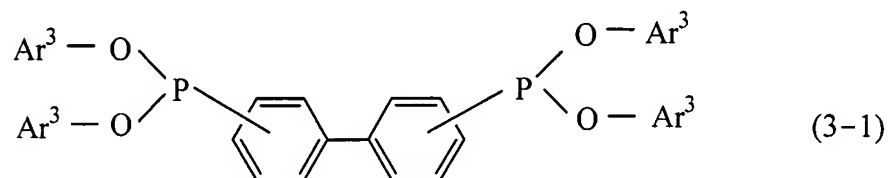
25. (Original) The light diffusion sheet of claim 18, wherein the heat stabilizer (component C) comprises trimethyl phosphate (component C-1) and distearyl pentaerythritol diphosphite (component C-2).

26. (Original) The light diffusion sheet of claim 18, wherein the heat stabilizer (component C) comprises distearyl pentaerythritol diphosphite (component C-2), a phosphite compound (component C-2) represented by the following general formula (2-2):



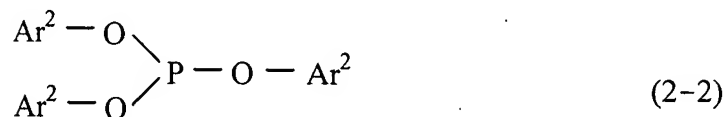
(wherein Ar²s may be the same as or different from one another and represent a C₈ to C₂₀ aryl group substituted with 2 to 4 alkyl groups),

and a phosphonite compound (component C-3) represented by the following general formula (3-1):



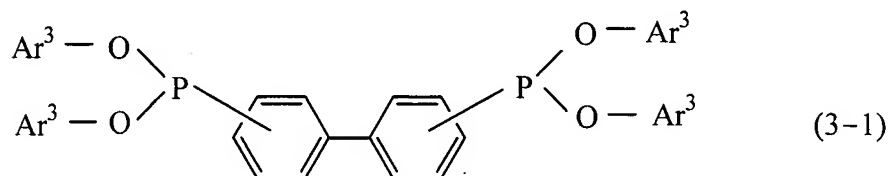
(wherein Ar³s may be the same as or different from one another and represent a C₆ to C₂₀ aryl group which is unsubstituted or substituted with an alkyl group).

27. (Original) The light diffusion sheet of claim 18, wherein the heat stabilizer (component C) comprises a phosphite compound (component C-2) represented by the following general formula (2-2):



(wherein Ar²s may be the same as or different from one another and represent a C₈ to C₂₀ aryl group substituted with 2 to 4 alkyl groups),

and a phosphonite compound (component C-3) represented by the following general formula (3-1):



(wherein Ar³s may be the same as or different from one another and represent a C₆ to C₂₀ aryl group which is unsubstituted or substituted with an alkyl group).

28. (Original) The light diffusion sheet of claim 18, wherein the ultraviolet absorber (component D) is at least one ultraviolet absorber selected from the group consisting of a benzophenone based ultraviolet absorber, a benzotriazole based ultraviolet absorber and a benzoxazine based ultraviolet absorber.

29. (Cancelled)

30. (Original) The light diffusion sheet of claim 18, wherein the fluorescent whitening agent (component E) is a benzoxazole based fluorescent whitening agent and/or a coumarin based fluorescent whitening agent.

31. (Previously presented) The device of claim 1, wherein the light diffusion sheet is formed from a composition comprising 0.01 to 0.5 parts by weight of ultraviolet absorber (component D) based on 100 parts by weight of the total of the components A and B.

32. (Previously presented) The light diffusion sheet of claim 18, wherein the sheet is formed from a composition comprising 0.01 to 0.5 parts by weight of ultraviolet absorber (component D) based on 100 parts by weight of the total of the components A and B.